

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed November 25, 2003. In order to advance prosecution of this case, Applicants amend Claims 1, 3, 7, 12-13, 18-19, 21, and 26-31. Applicants add Claims 36-37, which are fully supported by the Application as originally filed. Applicants respectfully request reconsideration and favorable action in this case.

Claim Objections

The Examiner objects to Claims 27-30 because the claims as filed depend from Claim 25, but appear to actually depend from Claim 26. For the purposes of examination, the Examiner considered Claims 27-30 to be dependent from Claim 26. The Examiner requests correction. Applicants amend Claims 27-30 to address the Examiner's concern.

Section 102 Rejections

The Examiner rejects Claims 1-2, 4-5, 7, 9-12, and 16-25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,101,198 issued to Koenig et al. ("Koenig"). As amended, Claim 1 recites:

A time slot interchanger (TSI) for a telecommunications node, comprising:

an exchange memory comprising a plurality of exchange memory slots, each exchange memory slot sized to store a traffic channel and comprising a plurality of discretely addressable fields sized to store a sub-channel; and

a controller operable in response to predefined switching instructions to write a sub-channel received in a first channel to a first field in a memory slot and to write a sub-channel received in a second channel to a second field in the memory slot, so that the sub-channel written to the first field and the sub-channel written to the second field may be read from the memory slot as a single traffic channel.

Koenig fails to teach, either expressly or inherently, every element of Claim 1. The teachings of Koenig are directed to "a method for performing a time slot interchange in a processor with a minimum of frame delay." Col. 4, ll. 25-27. More specifically, Koenig is limited to a system that interchanges the time-slots of particular portions of received traffic by reading traffic from an input buffer in either a sequential or a non-sequential manner, and then writing the traffic to an output buffer in the opposite manner. Col. 16, ll. 27-30. Koenig does not disclose any form of writing a plurality of sub-channels to a memory slot so that the sub-channels "may be read from the memory slot as a single traffic channel." Thus, Koenig fails to disclose "a controller operable . . . to write a sub-channel received in a first channel to a first field in a memory slot and to write a sub-channel received in a second channel to a second field in the

memory slot, so that the sub-channel written to the first field and the sub-channel written to the second field may be read from the memory slot as a single traffic channel" as recited by amended Claim 1.

As a result, Koenig fails to teach, either expressly or inherently, every element of amended Claim 1. Claim 1 is thus allowable for at least this reason. Applicants respectfully request reconsideration and allowance of Claim 1 and its dependents. Additionally, many of the dependents of Claim 1 include other elements that are also not disclosed in the cited references as discussed below.

Although of differing scope from Claim 1, Claim 18 includes elements that, for reasons substantially similar to those discussed above with respect to Claim 1, are not taught, either expressly or inherently, by the cited reference. Claim 18 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 18 and its dependents.

As amended Claim 12 recites:

A method for time division multiplex (TDM) switching of traffic in a telecommunications node, comprising:

receiving a traffic stream comprising a plurality of traffic channels having discrete sub-channels;

writing a first traffic channel that includes a first sub-channel to a first memory slot in an exchange;

writing a second traffic channel that includes a second sub-channel to a second memory slot in an exchange;

writing the first sub-channel to a first field in a third memory slot;

writing the second sub-channel to a second field in the third memory slot; and

reading the sub-channels from the third memory slot to an egress time slot as a single traffic channel.

*Koenig* fails to teach, expressly or inherently, every element of Claim 12. As noted above, the teachings of *Koenig* are directed to "a method for performing a time slot interchange in a processor with a minimum of frame delay." Col. 4, ll. 25-27. More specifically, *Koenig* is limited to a system that interchanges the time-slots of particular portions of received traffic by reading traffic from an input buffer in either a sequential or a non-sequential manner, and then writing the traffic to an output buffer in the opposite manner. Col. 16, ll. 27-30. *Koenig* does not disclose any form of reading sub-channels "as a single traffic channel[.]" Thus, *Koenig* does not disclose "reading the sub-channels from the third memory slot to an egress time slot as a single traffic channel" as recited by amended Claim 12.

As a result, *Koenig* fails to teach, either expressly or inherently, every element of amended Claim 12. Claim 12 is thus allowable for at least this reason. Applicants respectfully request reconsideration and allowance of Claim 12 and its dependents.

Claim 21 recites:

A method for processing traffic in a time slot interchanger (TSI) comprising:  
receiving a traffic stream comprising a plurality of traffic channels;  
writing each traffic channel to a memory slot in an exchange memory;  
reading a traffic channel stored in a memory slot;  
modifying data to generate a modified traffic channel; and  
writing the modified traffic channel to a memory slot.

*Koenig* does not teach, either expressly or inherently, every element of Claim 21. *Koenig* does not teach "modifying data to generate a modified traffic channel" as recited by Claim 21. According to the Examiner, "the time slots of the

T1 signals that comprise each frame stored in the ODD and EVEN buffers are interchanged." *Office Action*, p. 8. Thus, *Koenig* merely discloses interchanging the transmission order of traffic channels. *Koenig*, however, does not teach "modifying data to generate a modified traffic channel." Additionally, because *Koenig* does not teach "modifying data" *Koenig* does not teach "writing the modified traffic channel to a memory slot" as also recited by Claim 21.

As a result, *Koenig* fails to teach, either expressly or inherently, every element of amended Claim 21. Claim 21 is thus allowable for at least this reason. Applicants respectfully request reconsideration and allowance of Claim 21 and its dependents.

**Section 103 Rejections**

The Examiner rejects Claims 26, 30, and 31-35 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig*.

Although of differing scope from Claim 12, Claim 26 includes elements that, for reasons substantially similar to those discussed above with respect to Claim 12, are not taught, either expressly or inherently, by the cited reference. Claim 26 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 26 and its dependents.

Although of differing scope from Claim 21, Claim 31 includes elements that, for reasons substantially similar to those discussed above with respect to Claim 21, are not taught, either expressly or inherently, by the cited references. Claim 31 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 31 and its dependents.

The Examiner rejects Claims 3, 8, 13, 14, and 27-28 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig* in view of U.S. Patent No. 5,768,257 issued to Khacherian et al. ("*Khacherian*"). Claim 3 depends from Claim 1, which has been shown above to be allowable. Claim 3 is thus allowable for at least this reason. Additionally, Claim 3 recites:

The TSI of Claim 1, the controller further operable to write a first sub-channel of a first channel stored in a memory slot to a disparate memory slot associated with a second channel and to write a second sub-channel of the first channel to a disparate memory slot associated with a third channel.

*Koenig* does not disclose, teach, or suggest every element of amended Claim 3. As the Examiner concedes, "*Koenig* does not disclose that system [sic] comprises more than two disparate input buffer and more than one disparate output

buffer such that the operations of the claims limitations could be performed . . . ." *Office Action*, p. 9. Thus, *Koenig* does not disclose a controller "operable to write a first sub-channel of a first channel stored in a memory slot to a disparate memory slot of a second channel and to write a second sub-channel of the first channel to a disparate memory slot of a third channel" as recited by Claim 3.

Combination with *Khacherian* does not remedy this omission. *Khacherian* merely discloses a network switching apparatus that includes a plurality of input ports and a plurality of output ports configured so that every output port can communicate with every input port. Col. 3, ll. 40-44. *Khacherian*, however, does not disclose any writing of sub-channels. The mere fact that the network switching apparatus of *Khacherian* includes multiple input and output ports does not suggest that *Khacherian* teaches a controller "operable to write a first sub-channel of a first channel stored in a memory slot to a disparate memory slot of a second channel and to write a second sub-channel of the first channel to a disparate memory slot of a third channel" as recited by amended Claim 3.

As a result, *Koenig* and *Khacherian*, both alone and in combination, fail to disclose, teach, or suggest additional elements of Claim 3. Thus, for at least these additional reasons, Claim 3 is allowable. As noted above, Applicants respectfully request reconsideration and allowance of Claim 3.

Although of differing scope from Claim 3, Claims 13, 19, and 27 include elements that, for reasons substantially similar to those discussed above with respect to Claim 3, are not disclosed, taught, or suggested by *Koenig* or *Khacherian*. For at least these reasons, Claims 13, 19, and 27 are

allowable. As noted above, Applicants respectfully request reconsideration of Claim 13, 19, and 27.

Claim 8 depends from Claim 1, which has been shown above to be allowable. Claim 8 is thus allowable for at least this reason. Claim 14 depends from Claim 12, which has been shown above to be allowable. Claim 14 is thus allowable for at least this reason. Claim 28 depends from Claim 26, which has been shown above to be allowable. Claim 28 is thus allowable for at least this reason. As noted above, Applicants respectfully request reconsideration and allowance of Claims 8, 14, and 28.

The Examiner rejects Claims 6, 15, and 29 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig* in view of U.S. Patent No. 5,883,902 issued to Wille et al. ("*Wille*"). Claims 6, 15, and 29 depend from Claims 1, 12, and 26, respectively, which have all been shown above to be allowable. As noted above, Applicants respectfully request reconsideration and allowance of Claims 6, 15, and 29.



New Claims

Applicants add new Claims 36-37, which are fully supported by the Application as originally filed. Although of differing scope from Claim 12, Claim 36 includes elements that, for reasons substantially similar to those discussed above with respect to Claim 12, are not taught by the cited references. Claim 36 is thus allowable for at least this reason. Applicants request consideration and full allowance of Claim 36.

Although of differing scope from Claim 21, Claim 37 includes elements that, for reasons substantially similar to those discussed above with respect to Claim 21, are not taught by the cited references. Claim 37 is thus allowable for at least this reason. Applicants request consideration and full allowance of Claim 37.


Conclusions

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

A check in the amount of \$208.00 is enclosed to cover the fee for additional claims. No other fees are believed to be due, however, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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